## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 13 October 2005 (13.10.2005)

**PCT** 

## (10) International Publication Number WO 2005/094869 A1

- (51) International Patent Classification<sup>7</sup>: A61K 38/02, A61P 11/00, G01N 33/48, A61K 33/22, 33/14, 31/721, 31/785
- (21) International Application Number:

PCT/CA2005/000463

- (22) International Filing Date: 30 March 2005 (30.03.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

60/557,402 30 March 2004 (30.03.2004) US

- (71) Applicants and
- (72) Inventors: KING, Malcolm [CA/CA]; 3328-116 Street, Edmonton, Alberta T6J 3J2 (CA). ZAYAS, J., Gustavo [CA/CA]; 4406-151 Avenue, Edmonton, Alberta T5Y 3B1 (CA).
- (74) Agent: BERESKIN & PARR; 40 King Street, Suite 4000, Toronto, Ontario M5H 3Y2 (CA).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



(54) Title: COMPOSITIONS AND METHODS FOR IMPROVED MUCUS FUNCTION

(57) Abstract: The invention relates to compositions and methods for enhancing mucus functions such as but not limited to improved respiratory tract mucus clearance. The compositions of the invention are mucothickening compositions. They can be used to improve mucus clearance in a subject in need thereof, such as in the treatment of conditions related to non-functioning cilia or to excessively thin mucus.